

-- Remarks --

Claims 1 – 29, inclusive, remain in the case. Claims 1, 9, 10, 13, 14, 21, 22,26 have been amended to meet the objections referred to in the Office Action with the exception of the objection to Claim 13. Amendments of claims 1, 13 and 26 also more particularly point out Applicant's claimed invention such that the claims as amended more clearly distinguish over the cited references as well as the references of record not cited against the application. It is respectfully submitted that the claims, as amended, are patentable as is shown in further detail hereinbelow, and that all objections and rejections should be reconsidered and withdrawn.

I. Rejection under 35 USC 102(b) is not Well-taken and Should be Reconsidered and Withdrawn, and Applicant Traverses Said Rejection.

Under 35 USC 102, anticipation requires the disclosure in a single piece of prior art of every limitation of the claimed invention. *Electro-Med. Sys. S.A. v Cooper Life Sciences*, 34 F.3d 1048, 32 USPQ 2d 1017 1019 (Fed Cir. 1994). The Cohen et al reference (U.S. Patent No. 5,090, 742 to J. L. Cohen et al) does not meet these very specific anticipation requirements as set forth by controlling authority, supra.

The Cohen et al device constitutes “a pipe harness clamp for maintaining pre-load in axially coupled pipes...

“Washers, such as disk washers, are provided on the clamping bolts for maintaining pre-load. A plurality of washers may be used on each bolt. Belleville washers are preferred. The bolts are pre-tensioned and the washers compensate for any relaxation of the bolts

in use. Preload is not significantly reduced and clamp load capacity is maintained.”

Cohen et al, Col. 1, lines 45 – 47, 57 – 64.

The problem solved by the Cohen et al device is stated as follows: “Harness clamps for use when pipes are axially coupled are known in the art, but known clamps are not satisfactory in maintaining preload. The clamp halves and bolts may relax and initial preload is lost, resulting in leakage of fluids carried by the pipes.” Cohen et al, Col. 1, lines 9 – 14.

It appears from the Office Action that the rejection of claims 1 – 7, 9, 13 – 19, 21 and 26 – 29 is predicated upon Cohen et al., Col. 1, lines 57 – 64, Col. 2, lines 25 -33 and Col. 3, lines 1 – 53. The Office Action apparently contends that the Belleville washers 18 in Cohen et al correspond to the retention means recited in the rejected claims herein. This, however, is wholly incorrect and at variance with the clear teaching and claim language of the instant patent application, as well as Cohen et al.

As stated in Cohen et al.: “In a non-limiting example of a pipe harness clamp of the invention, the clamp may be fabricated of carbon steel of $\frac{3}{4}$ inch thickness and 10 inches wide. The Belleville washers may be of steel having spring rates suitable for the required preload. Belleville washers may be obtained from Associated Spring. The bolts are preloaded by torque wrench using a torquing sequence to assure that *all bolts are uniformly loaded and the Belleville washers compressed.*”(Emphasis added). Cohen et al, Col. 3, lines 45 – 54.

In stark contrast, in the instant application it is set forth in amended Claim 1 (lines 9-11): “retention means engageable with said at least one screw for retaining said at least one screw in said at least one screw hole prior to fastening said clamping means together by securing said at least one nut with said at least one screw.”

See also Claim 1 which recites, “clamping means for clamping around said pipe ends, said clamping means including at least one screw hole for receiving at least one screw for fastening by securing at least one nut thereon, said clamping means over said gasket means and said pipe ends, said at least one screw being configured such that it is loosely disposed in said at least one screw hole prior to fastening of said clamping means.”

Amended Claim 1, lines 3 – 5.

Clearly, the structure and function of the “Belleville washers” and of the “retention means” of the present application vis a vis the Cohen et al. reference are totally different. In the Cohen et al. structure, the Belleville washers provide capability for maintaining preload force in a bolted arrangement whereas in the instant application, the retention means are exactly what they are stated to be “retention means” i.e. they prevent screws from falling out of screw holes prior to clamping between two clamps accomplished by a nut mounted on the screw which then fastens the clamps together as well as holding the screw in place. There is no aspect of distributing or maintaining preload for the retention means in the instant application whereas, the Belleville washers have no purpose to prevent a screw/bolt upon which they are mounted from slipping out of a screw hole.

Accordingly, the retention means are designated to be means for retaining the screw in a screw hole prior to fastening the clamps by securing a nut to the screw. After said

fastening of the clamps there is no role or use for the retention means. As provided in the specification, "retention means 46 [are] in place to prevent backward motion from, i.e., disengagement from, screw holes 48, 48', 50, 50', 52, 52'.

"Retention means 46 as shown in Fig. 4A is in the form of a resilient peripheral disc 47 of generally circular configuration defining an internal opening 54 of generally polygonal configuration such as to accommodate and provide frictional engagement with screws 24, 24', 26, 26'. A slot 56 is defined in the peripheral disc 47 for placing retention means 46 onto screws 24, 24', 26, 26', from the ends of shanks 25, 25', 27, 27'.

"In addition, disposition of retention means 46 onto screws 24, 24', 26, 26' may be accomplished by pressing retention means 46 onto screws 24, 24', 26, 26' through opening 54 from the sides of shanks 25, 25', 27, 27'." Specification, page 5, lines 6 – 15.

This is wholly different and distinct from the structure and function of washers which according to common parlance, the Cohen et al patent and dictionary definition are "any of various flat thin rings or perforated plates (as of metal or leather) used in joints or assemblies to insure tightness, prevent leakage, or relieve friction." Webster's Third New International Dictionary p. 2579 (1981). See Exhibit 1 attached hereto and incorporated by reference herein.

Consequently, the invention claimed in Claims 1 – 7, 13 – 19, 21, and 26-29 is not anticipated by Cohen et al and are not unpatentable under 35 USC 102(b). Electro Med. Sys. S.A. v Cooper Life Sciences, supra.

The same considerations apply to independent Claim 13 as amended and all claims dependent thereon that is, Claims 14 – 19, and 21.

Concerning Claim 26 the same considerations apply as with respect to the above-discussed claims.

In amended Claim 26, Applicant's invention is clearly pointed out, i.e., "providing clamping means for clamping around said conduit ends and including at least one screw hole for receiving at least one screw for fastening said clamping means upon said gasket means and said conduit ends in substantially fluid-tight relationship means by securing at least one nut to said at least one screw..."

"Disposing retention means in connection with said at least one screw to prevent said at least one screw from *exiting said at least one screw hole prior to said fastening of said clamping means and said gasket means.*" (Emphasis added). Amended Claim 26, lines 5–8, 10–13.

Again, the retention means has no function except for the purpose of preventing "exiting" of the screw from the screw hole prior to fastening of the clamp means with the gasket means, as opposed to the Belleville washers in the Cohen, et al. reference whose only purpose is to address the issue of preload.

Accordingly, claims 26-29 are not anticipated by Cohen, et al and are not unpatentable under 35 USC 102(b). Electro-Med Sys. S.A. v. Cooper Life Sciences, *supra*.

II. Rejection of Claims 8, 10-12, 20 and 22-25 for Alleged Obviousness under 35 USC Sec. 103(a) is Error and must be Reconsidered and Withdrawn, And Said Rejection is Traversed.

Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *Para-Ordnance Manufacturing, Inc. v. SGS Importers, Inc.*, 73 F.3d 1085, 37 USPQ 2d 1237 (Fed. Cir. 1995).

It is well-established that a reference should be considered as a whole and portions arguing against the claimed inventions must be considered. *Baucsh & Lomb, Inc. v Barnes-Hind/Hydrocurve, Inc.*, 796 F2d 443, 230 USPQ 416 (Fed. Cir. 1986). As noted in *Gillette Co. v. S.C. Johnson & Son, Inc.*, 919 F2d 720, 16 USPQ 2d 1923 (Fed. Cir. 1990), the closest prior art reference “*would likely discourage the art worker from attempting the substitutions suggested by [the inventor/patentee].*” (Emphasis added)

The rejection under 35 USC 103 of claims 8, 10-12, 20 and 22-25 as allegedly unpatentable over Cohen, et al. (US Patent No. 5,090,742) is not well-taken and should be reconsidered and withdrawn, and Applicant traverses said rejection.

As noted above, the Cohen et al. “Belleville washers” are wholly distinct and different from the “retention means” recited in the instant application.

The Office Action contends “Regarding claims 8, 10-11, 20, 22-23 and 25, Cohen et al through prefer [sic] to use Belleville washers, make [sic] clear in the description and claims that washers in general are acceptable to control preload. And given that each of

the claimed washers are [sic]commonly known and used, and Applicant fails to state that employing such differently configured washers is for any particular purpose, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the type of washers claimed in Claims 8, 10-11, 20, 22-23 and 25 in Cohen, et al.” Office Action pages 3-4, lines 22-26, 1-2.

Claims at issue in this section depend from amended independent Claim 1 (Claims 8, 10-12) and amended Claim 13 (Claims 22-25). The amended independent claims make unmistakably clear that the “retention means” are in fact not “washers” as the term is used in the art, in Cohen et al, and in the dictionary reference of Exhibit 1. The “washers” in Cohen et al have the purpose of controlling preload, whereas the retention means recited in the independent claims herein and incorporated into the dependent claims have the explicitly stated purpose of “retaining said at least one screw in said at least one screw hole prior to fastening said clamping means together by securing said at least one nut with said at least one screw.”

Similarly, in amended Claim 13 is recited “the improvement comprising retention means for retaining said at least one screw in place when inserted in said clamping means and prior to fastening of said clamping means by securing said at least one nut on said at least one screw.”

Clearly, given the totally distinct and different and structures and purposes of the Belleville washers as opposed to the retention means, the difference in the problems sought to be solved by means of the claimed invention in the Cohen et al reference in contrast to the instant application, on that ground alone, there would be no incentive for

anyone skilled in the art to seek in any field of search for the Cohen et al. device in an attempt to reconstruct the device of the instant application. In re Oetiker, 977 F2d 1443, 24 USPQ 2d 443 (Fed. Cir. 1992). Moreover, there is no showing or suggestion in the reference of the retention means recited in the claims of the instant application. The art of record shows no indication whatsoever of recognition of, or an attempt to solve, the problem addressed by the invention of the instant application namely, tendency of screws inserted in the clamping members to exit, i.e. disengage from the screw holes, prior to fastening of the clamping means together by a nut secured with the screw.

The art is preoccupied with the issue of structural and performance characteristics of washers to be employed in connection with the actual fastened-together clamps as opposed to retaining the screws in the screw holes prior to fastening together of the clamping means.

Clearly, this renders the attempted hindsight reconstruction impermissible. Paramount Ordinance Manufacturing, Inc. v. S.G.S. Importers, Inc., supra.

Regarding Claims 12 and 24, the Office Action contends: "Cohen et al fail [sic] to teach adhesion means for adhesion to the screws. The examiner takes official notice of the use of adhesion means to adhere a washer to a screw or bolt. And it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ adhesion means on the washers of Cohen et al in order to better retain and secure the washers to the bolts." Office Action, page 4, lines 3-8.

To the contrary, the washers in Cohen et al would experience no benefit with respect to their structure and function by having “adhesion means” associated therewith, since the Cohen et al washers will be thrust against other washers and finally against clamping means and/or a fastening nut by frictional engagement due to the nut’s being screwed on to the screw member in connection with fastening the clamps to one another. It would be absolutely pointless and contraindicated to add adhesion members to the already tightly-engaged clamp/screw/nut/washer assembly. In contrast, adhesion means are wholly appropriate for the retention means of the instant application as specifically stated in the claims under discussion, Claims 12 and 24, the adhesion means having the purpose and function of retaining the screws in the screw holes prior to fastening the screws between the clamps by means of a nut screwed on to the screw/bolt. Thus, any “official notice” of the use of such adhesion means is wholly erroneous as being variance with the overall tenor of the art, of common practice and of the Cohen et al reference as well as the instant application.

As noted above, independent amended Claim 13 (from which Claim 24 depends) and independent amended Claim 1 (from which Claim 12 depends) clearly recite the purpose, function, and structure of the retention means disclosed and claimed herein, which is wholly distinct and different from anything shown or suggested in the reference. Consequently, the rejection of claims 8, 10-12, 20 and 22-25 is incorrect, and should be reconsidered and withdrawn.

III. The Objection to Claims 1-25 Is Not Well Taken and Should Be Reconsidered and Withdrawn, and Applicant Traverses Said Objection.

The formal objection to Claims 1-25 as allegedly violative of 37 CFR 1.75(g), is erroneous and should be reconsidered and withdrawn, and Applicant traverses said objection.

The Office Action states a formal objection to Claims 1-25 in reliance on 37 CFR 1.75(g) as follows: "Claims 1-25 are objected to under 37 CFR 1.75(g), which states the least restrictive claim should be presented as claim No. 1. It is clear that Claim 13 is less restrictive than Claim 1." Office Action, Page 2, lines 4-6.

Applicant respectfully traverses the formal objection. It is by no means clear that amended claim 13 is "less restrictive" than amended Claim 1. The claims differ in that Claim 1 is a system claim whereas Claim 13 is "an improvement" claim. In either case, the elements of clamping means, screw means, gasket means, retention means are involved.

Clearly, the claims have the same context and relate to the same elements. Consequently, neither claim is more restrictive than the other; rather, they are alternative approaches to similar subject matter.

Accordingly, the formal objection to Claims 1-25 predicated upon 37 CFR 1.75(g) is incorrect and should be reconsidered and withdrawn.

IV. Conclusion.

Based upon the foregoing, Applicant respectfully submits that all objections and rejections have been addressed and resolved, that all objections and rejections of the claims as amended should be withdrawn, and that all claims should be allowed. The references cited as

of record have been reviewed and are believed not to affect patentability of the amended application.

Respectfully submitted,
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